

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,963,312 B2  
APPLICATION NO. : 10/022753  
DATED : November 8, 2005  
INVENTOR(S) : Nicholas A. Schuneman et al.

Page 1 of 3

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 5, Line 28:

After "14" delete "7.30E-30" and insert -- -7.30E-30 --.

Column 5, Line 32:

After "20" delete "1.30E-50" and insert -- -1.30E-50 --.

Column 13, Line 55:

After "length" delete "l" and insert --  $\ell$  --.

Column 14, Line 18:

After "follows" please delete  $\begin{bmatrix} A & B \\ C & D \end{bmatrix}_{SEG} = \begin{bmatrix} \cos(\beta l) & jZ_{SEG} \sin(\beta l) \\ \frac{j \cdot \sin(\beta l)}{Z_{SEG}} & \cos(\beta l) \end{bmatrix}$  and insert

--  $\begin{bmatrix} A & B \\ C & D \end{bmatrix}_{SEG} = \begin{bmatrix} \cos(\beta \ell) & jZ_{SEG} \sin(\beta \ell) \\ \frac{j \cdot \sin(\beta \ell)}{Z_{SEG}} & \cos(\beta \ell) \end{bmatrix}$  --.

Column 14, Line 57:

After "x[" delete " $Y_{FS}$ " and insert --  $V_{FS}$  --.

Column 15, Line 9:

After "current times impedance. Thus" delete " $V_{FS}=I_{FS} \cdot Z_{FS}$ " and insert --  $V_{FS} = I_{FS} \cdot Z_{FS}$  --.

Column 20, Line 44:

After "an elongate conductive element" delete "which extends" and insert -- being coplanar with the conductive section, the elongate conductive element extending --.

Column 21, Line 1:

Delete Claim 5 and insert

-- An apparatus, comprising:

    a conductive section having a recess which includes a balun portion and a slot portion, said slot portion communicating at one end with said balun portion, and said slot portion having edges on opposite sides thereof which each follow a predetermined curve other than a first-order exponential curve; and

    an elongate conductive element which extends generally transversely with respect to said slot portion in the region of said one end thereof, and which can carry an electrical signal;

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 21, Line 1 (cont'd):

wherein said predetermined curve includes first and second exponential characteristics involving respective different exponential powers. --

Column 21, Line 5

Delete Claim 6 and insert

--An apparatus, comprising:

a conductive section having a recess which includes a balun portion and a slot portion, said slot portion communicating at one end with said balun portion, and said slot portion having edges on opposite sides thereof which each follow a predetermined curve other than a first-order exponential curve; and

an elongate conductive element which extends generally transversely with respect to said slot portion in the region of said one end thereof, and which can carry an electrical signal;

wherein said predetermined curve includes a plurality of exponential characteristics involving respective different exponential powers. --.

Column 21, Line 9:

Delete Claim 7 and insert

--An apparatus, comprising:

a conductive section having a recess which includes a balun portion and a slot portion, said slot portion communicating at one end with said balun portion, and said slot portion having edges on opposite sides thereof which each follow a predetermined curve other than a first-order exponential curve; and

an elongate conductive element which extends generally transversely with respect to said slot portion in the region of said one end thereof, and which can carry an electrical signal;

a dielectric layer wherein said conductive section includes two electrically conductive layers disposed on opposite sides of said dielectric layer, said conductive layers having respective recesses therein which are aligned with each other and which each include a balun hole that is part of said balun portion and a slot that is part of said slot portion; and

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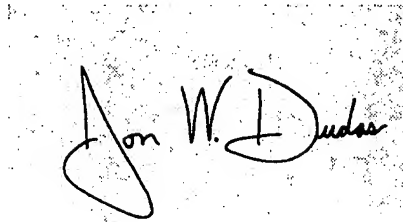
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 21, Line 9 (cont'd):

wherein said conductive section includes a plurality of vias which each extend between said conductive layers through said dielectric layer, said vias being disposed near each edge of each said slot at spaced locations therealong. --

Signed and Sealed this

Twentieth Day of November, 2007

A handwritten signature in black ink, reading "Jon W. Dudas". The signature is written in a cursive style with a large, stylized "J" and "D".

JON W. DUDAS  
*Director of the United States Patent and Trademark Office*